

CLAIMS:

1. A bearing for use in a movable socket having a stud member with a stud head, and a housing with a central bore for receiving said stud head, comprising:

an annular bearing body configured to seat between the housing and said stud head in the central bore of the housing, said annular bearing body having an exterior surface and an inner surface configured to receive a portion of the stud head; and

wherein said inner surface includes at least three radial slots, two of said radial slots having a first radial depth which differs from a radial depth of each other radial slot.

2. The bearing of Claim 1 wherein said radial slots are symmetrically disposed about a vertical axis of said bearing.

3. The bearing of Claim 1 wherein said radial slot dimensions and placements are configured to minimize stresses within said bearing.

4. The bearing of Claim 1 wherein said radial slot dimensions and placements are configured to equalize stresses within said bearing.

5. The bearing of Claim 1 wherein said annular bearing body includes a discontinuity.

6. The bearing of Claim 1 wherein an axial plane bisects said annular bearing body into first and second mirror image portions.

7. The bearing of Claim 6 wherein said axial plane is a Y-axis axial plane.

8. The bearing of Claim 6 wherein a radial depth associated with each radial slot in each of said first and second mirror image portions increases for each radial slot

from a minimum radial depth in a first radial slot to a maximum radial depth in a last radial slot.

9. The bearing of Claim 1 wherein each of said radial slots includes an enlarged end portion and a reduced-width neck portion, said reduced-width neck portion having a width less than a width of said enlarged end portion.

10. The bearing of Claim 9 wherein each of said enlarged end portions has a circular cross section.

11. The bearing of Claim 9 wherein each of said enlarged end portions of said radial slots is identical.

12. The bearing of Claim 9 wherein an axial plane bisects said annular bearing body into first and second mirror image portions; and wherein each of said reduced width neck portions for radial slots disposed one of mirror image portions has a unique length.

13. The bearing of Claim 12 wherein a unique length associated with each radial slot said mirror image portion increases for each radial slot from a minimum radial depth in a first radial slot to a maximum radial depth in a last radial slot..

14. The bearing of Claim 1 wherein said annular bearing body is secured in the housing against radial movement.

15. The bearing of Claim 1 wherein said annular bearing body is secured in the housing against rotational movement.

16. The bearing of Claim 1 wherein said annular bearing body is movable in an axial direction within the housing.

17. A suspension joint for a vehicle comprising:
a housing for receiving a stud head;
a bearing insert disposed between said housing and said stud head, said bearing insert including at least three radial slots disposed therein and a discontinuity;
wherein each of said radial slots has a radial depth; and
wherein no more than two of said at least three radial slots have an identical radial depth.

18. The suspension joint of Claim 17 wherein said bearing insert includes five radial slots, a first of said radial slots disposed axially opposite from said discontinuity, and two pairs of axially opposed radial slots each equidistantly spaced between said first radial slot and said discontinuity.

19. The suspension joint of Claim 18 wherein said first radial slot has a first radial depth less than a radial depth of each of said two pairs of axially opposed radial slots.

20. The suspension joint of Claim 18 wherein a second radial slot in each of said two pairs of axially opposed radial slots has a radial depth less than a radial depth of a third radial slot in each of said two pairs of axially opposed radial slots.

21. The suspension joint of Claim 17 wherein said radial slot dimensions and placements are configured to minimize stresses within said bearing.

22. The suspension joint of Claim 17 wherein said radial slot dimensions and placements are configured to equalize stresses within said bearing.

23. The suspension joint of Claim 17 wherein said bearing is secured in said housing against radial movement.

24. The suspension joint of Claim 17 wherein said bearing is secured in said housing against rotational movement.

25. The suspension joint of Claim 17 wherein said bearing is movable in an axial direction within said housing.

26. The suspension joint of Claim 17 wherein said bearing insert includes six radial slots.

27. The suspension joint of Claim 26 wherein a first pair of radial slots has a first radial depth, a second pair of radial slots has a second radial depth, and a third pair of radial slots has a third radial depth.

28. The suspension joint of Claim 27 wherein said first radial depth is less than said second radial depth; and wherein said second radial depth is less than said third radial depth.

29. The suspension joint of Claim 26 wherein said bearing insert is bisected into first and second mirror image portions by an axial plane; and wherein said six radial slots define three pairs of radial slots, each pair of radial slots bisected by said axial plane.